3. (Three Times Amended) The wafer according to claim 42, wherein a width of the upper electrode is dependent upon the position at which the film acoustic wave device is mounted on the wafer.

4. (Three Times Amended) The wafer according to claim 42 further including a plurality of upper electrodes, wherein

distances between each of the plurality of upper electrodes are dependent upon the position at which the film acoustic wave device is mounted on the wafer.

F1 cont.

5. (Three Times Amended) The wafer according to claim 42 further comprising:

a bonding pad for connecting with the at least one upper electrode, wherein

the pattern shape of the film acoustic wave device is formed by at least the ground electrode, the piezoelectric thin film, the at least one upper electrode, and the bonding pad, and wherein

a shape of the bonding pad is dependent upon the position at which the film acoustic wave device is mounted on the wafer.

6. (Three Times Amended) The wafer according to claim 5 further comprising:

a connecting pattern for connecting the upper electrode with the bonding pad, wherein

the pattern shape of the film acoustic wave device is formed by at least the ground electrode, the piezoelectric thin film, the at least one upper electrode, the bonding pad, and the connecting pattern, and wherein

a shape of the connecting pattern is dependent upon the position at which the film acoustic wave device is mounted on the wafer.

F1 cont.

7. The wafer according to claim 6, wherein the connecting pattern forms an air bridge.

8. (Three Times Amended) The wafer according to claim 42 further comprising:

a capacitor provided on the same wafer as the film acoustic wave device, wherein

a capacitance of the capacitor is dependent upon the position at which the film acoustic wave device is mounted on the wafer.

9. (Twice Amended) The wafer according to claim 42, wherein the wafer is made of gallium arsenide (GaAs), the piezoelectric thin film is made of lead titanate ($PbTiO_3$), and at least one upper electrode is a conductor substantially made of platinum (Pt).

10. (Twice Amended) The wafer according to claim 42, wherein the wafer is made of silicon (Si), the piezoelectric thin film is made of lead titanate ($PbTiO_3$), and at least one upper electrode is a conductor substantially made of platinum (Pt).

F1 Cont.

11. (Twice Amended) The wafer according to claim 42, wherein the piezoelectric thin film is made of PZT ($PbTiO_3$-$PbZrO_3$), and at least one upper electrode and the ground electrode is a conductor substantially made of platinum (Pt).

12. The wafer according to claim 42, wherein the piezoelectric thin film is made of zinc oxide (ZnO).

13. (Amended) The wafer according to claim 42, wherein the piezoelectric thin film is made of aluminum nitride (AlN).

F1 Con'd

14. (Twice Amended) The wafer according to claim 42 further comprising: an inductor positioned between the wafer and the ground electrode.

Please add the following new claims 42-62 as follows.

--Claim 42. A wafer having a plurality of acoustical wave devices formed thereon and exhibiting common operational characteristics, each of said acoustical wave devices comprising:

a ground electrode formed on the wafer;

a piezoelectric thin film formed on the ground electrode, wherein the piezoelectric thin film varies in at least one characteristic across the wafer; and

F2

at least one upper electrode formed on the piezoelectric thin film;

wherein at least the ground electrode, the piezoelectric thin film and the at least one upper electrode form components in each of the plurality of acoustical wave devices; and

wherein at least one component in some of the plurality of acoustical wave devices is modified in its operational characteristic to compensate for the variation in the at least one characteristic of the piezoelectric thin film and is based on the location of the at least one acoustical wave devices on the wafer.

43. The wafer of claim 42, wherein the varied characteristic of the piezoelectric thin film is thickness.

44. The wafer of claim 43, wherein the piezoelectric thin film is thicker in the middle of the wafer and becomes thinner as it extends out towards the periphery of the wafer.

45. A plurality of acoustical wave device chips formed from a common wafer, each chip comprising:

B3 Cont

a ground electrode formed on the wafer;

a piezoelectric thin film formed on the ground electrode, wherein the piezoelectric thin film varies in at least one characteristic across the wafer; and

at least one upper electrode formed on the piezoelectric thin film;

wherein at least the ground electrode, the piezoelectric thin film and the at least one upper electrode form components of the plurality of acoustical wave devices; and

wherein at least one component in at least some of the plurality of acoustical wave devices is modified in its operational characteristic to compensate for the variation in the at least one characteristic of the piezoelectric thin film and is based on the location of the at least one acoustical wave devices on the wafer.

46. The wafer of claim 45, wherein the varied characteristic of the piezoelectric thin film is thickness.

47. A method of fabricating a plurality of acoustical wave devices from a single wafer in which at least one of the plurality of acoustical wave devices is modified in order to obtain common operational characteristics of the plurality of acoustical wave devices, the method comprising the steps of:

forming a ground electrode on the wafer;

forming a piezoelectric thin film, wherein the piezoelectric thin film varies in at least one characteristic across the wafer; and

forming at least one upper electrode on top of the piezoelectric thin film;

wherein at least the ground electrode, the piezoelectric thin film and the at least one upper electrode form components of the plurality of acoustical wave devices; and

wherein at least one of the components of the plurality of acoustical wave devices is modified in its operational characteristic to compensate for the variation in the at least one characteristic of the piezoelectric thin film and is based on the location of the at least one acoustical wave devices on the wafer.

A2
Cont

48. The wafer of claim 47, wherein the varied characteristic of the piezoelectric thin film is thickness.

49. The method of claim 48, wherein the piezoelectric thin film is thicker in the middle of the wafer and becomes thinner as it extends out towards the periphery of the wafer.

50. The method of claim 47, wherein a length of the at least one upper electrode is dependent upon the location at which the film acoustic wave device is provided on the wafer.

51. The method of claim 47, wherein a width of the at least one upper electrode is dependent upon the location at which the film acoustic wave device is provided on the wafer.

52. The method of claim 47 further comprising the step of :
forming a plurality of upper electrodes, wherein distances between each of the plurality of upper electrodes are dependent upon the location at which the film acoustic wave device is provided on the wafer.

53. The method of claim 47 further comprising the step of:

connecting a bonding pad with the at least one upper electrode, wherein

the pattern shape of the film acoustic wave device is formed by at least the ground electrode, the piezoelectric thin film, the at least one upper electrode, and the bonding pad, and wherein

a shape of the bonding pad is dependent upon the location at which the film acoustic wave device is provided on the wafer.

54. The method of claim 53 further comprising the step of:

connecting the upper electrode and the bonding pad by way of a connecting pattern, wherein the pattern shape of the film acoustic wave device is formed by at least the ground electrode, the piezoelectric thin film, the at least one upper electrode, the bon ding pad, and the connecting pattern, and wherein a shape of the connecting pattern is dependent upon the location at which the film acoustic wave device is provided on the wafer.

55. The method of claim 54, wherein the connecting pattern forms an air bridge.

56. The method of claim 47 further comprising the step of:

providing a capacitor on the same wafer as the film acoustic wave device, wherein

a capacitance of the capacitor is dependent upon the location at which the film acoustic wave device is provided on the wafer.

57. The method of claim 47, wherein the wafer is made of gallium arsenide (GaAs), the piezoelectric thin film is made of lead titanate (PbTiO3), and at least one upper electrode is a conductor substantially made of platinum (Pt).

F2 Cont.

58. The method of claim 47, wherein the wafer is made of silicon (Si), the piezoelectric thin film is made of lead titanate (PbTiO3), and at least one upper electrode is a conductor substantially made of platinum (Pt).

59. The method of claim 47, wherein the piezoelectric thin film is made of PZT (PbTiO3-PbZrO3), and at least one upper electrode and the ground electrode is a conductor substantially made of platinum (Pt).

60. The method of claim 47, wherein the piezoelectric thin film is made of zinc oxide (ZnO).

Fd Con'd

61. The method of claim 47, wherein the piezoelectric thin film is made of aluminum nitride (AlN).

62. The method of claim 47 further comprising the step of:

positioning an inductor between the wafer and the ground electrode

REMARKS

Claims 2-14 and 42-62 are pending in the present application. By this amendment, claims 1, 15, 25 and 27-41 have been cancelled, claims 2-14 have been amended and claims 42-62 have been added. Reconsideration and allowance based on the above amendments and following remarks are respectfully requested.

The Office Action rejects claims 1-14 under 35 U.S.C. §102(a) as being anticipated by Vale, Krishnaswamy, Japan (804) and Curran; claims 15 and 40 under 35 U.S.C. §102(a) as being anticipated by Japan (804), Berlincourt or Vale; and claims 25, 27-39 and 41 under 35 U.S.C. §103(a) as being unpatentable over Carson, Krishnaswamy or Vale in view of Berlincourt or Japan (804). These rejections are respectfully traversed.

By this amendment, claims 1, 15, 25 and 27 through 41 have been cancelled. Thus, the rejections in view of these claims are now moot. However,